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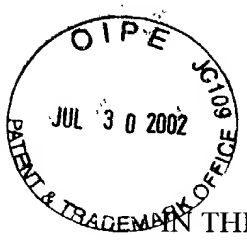

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Orest W. Blaschuk et al.
Application No.	:	09/778,026
Filed	:	February 5, 2001
For	:	COMPOUNDS AND METHODS FOR REGULATING CELL ADHESION
	Art Unit No. :	2811
	Docket No. :	100086.402C1
	Date :	July 30, 2002

Box Missing Parts
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Arlington, VA 22202

PRELIMINARY AMENDMENT

Commissioner for Patents:

Please amend the above-identified application as follows:

In the Specification:

Please add, beginning at page 1 line 3 before the TECHNICAL FIELD section the following new paragraph:

CROSS-REFERENCE TO RELATED APPLICATION

This application is a continuation of U.S. Patent Application No. 08/939,853, filed September 29, 1997, now issued as U.S. Pat. No. 6,203,788, which application is incorporated herein by reference in its entirety.

In the Claims:

Please cancel claims 1-19, 21, 35, 51, 62, 69-188, and 190-192.

Please amend claims 20, 22, 25, 27-29, 33-34, 36-38, 41-43, 46, 50, 52, 54-55, 57, 60, 63, and 65-66 to read as follows:

20. (Amended) A method for enhancing the delivery of a drug through the skin of a mammal, comprising contacting epithelial cells of a mammal with a cell adhesion modulating agent and a drug, wherein said modulating agent comprises

(a) the sequence His-Ala-Val, or

(b) an antibody or fragment thereof that specifically binds to a cadherin cell adhesion recognition sequence,

wherein said modulating agent inhibits cadherin-mediated cell adhesion, and wherein the step of contacting is performed under conditions and for a time sufficient to allow passage of said drug across said epithelial cells.

22. (Amended) A method according to claim 20, wherein said modulating agent passes into the blood stream of said mammal.

25. (Amended) A method according to claim 20, wherein said modulating agent further comprises at least one cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin, and wherein said cell adhesion recognition sequence is separated from any His-Ala-Val sequence(s) by a linker.

27. (Amended) A method according to claim 20, wherein said modulating agent is linked to a targeting agent.

28. (Amended) A method according to claim 20, wherein said modulating agent is linked to said drug.

29. (Amended) A method according to claim 20, wherein said modulating agent is present within a pharmaceutical composition comprising a pharmaceutically acceptable carrier.

33. (Amended) A method according to claim 20, wherein the step of contacting is performed via a skin patch comprising said modulating agent and said drug.

34. (Amended) A method for enhancing the delivery of a drug to a tumor in a mammal, comprising administering to a mammal a cell adhesion modulating agent and a drug, wherein said modulating agent comprises

(a) 3-16 amino acid residues, including the sequence His-Ala-Val, or

(b) an antibody or fragment thereof that specifically binds to a cadherin cell adhesion recognition sequence,

and wherein said modulating agent inhibits cadherin-mediated cell adhesion.

36. (Amended) A method according to claim 34, wherein the tumor is selected from the group consisting of bladder tumors, ovarian tumors and melanomas.

37. (Amended) A method according to claim 34, wherein said composition is administered to said tumor.

38. (Amended) A method according to claim 34, wherein said composition is administered systemically.

41. (Amended) A method according to claim 34, wherein said modulating agent is linked to a targeting agent.

42. (Amended) A method according to claim 34, wherein said modulating agent linked to said drug.

43. (Amended) A method according to claim 34, wherein said modulating agent further comprises one or more of:

(a) a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin, wherein said cell adhesion recognition sequence is separated from any His-Ala-Val sequence(s) by a linker; and/or

(b) an antibody or antigen-binding fragment thereof that binds to a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin.

46. (Amended) A method according to claim 33, wherein said modulating agent and said drug are present within a pharmaceutical composition comprising a pharmaceutically acceptable carrier.

50. (Amended) A method for treating cancer in a mammal, comprising administering to a mammal a cell adhesion modulating agent, wherein said modulating agent comprises

(a) 3-16 amino acid residues, including the sequence His-Ala-Val, or

(b) an antibody or fragment thereof that specifically binds to a cadherin cell adhesion recognition sequence,

and wherein said modulating agent inhibits cadherin-mediated cell adhesion.

52. (Amended) A method according to claim 50, wherein said cancer is selected from the group consisting of carcinomas, leukemia and melanomas.

54. (Amended) A method according to claim 50, wherein said modulating agent is linked to a targeting agent.

55. (Amended) A method according to claim 50, wherein said modulating agent further comprises at least one cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin, and wherein said cell adhesion recognition sequence is separated from any His-Ala-Val sequence(s) by a linker.

57. (Amended) A method according to claim 50, wherein said modulating agent is present within a pharmaceutical composition comprising a pharmaceutically acceptable carrier.

60. (Amended) A method for inhibiting angiogenesis in a mammal, comprising administering to a mammal a cell adhesion modulating agent, wherein said modulating agent comprises

(a) the sequence His-Ala-Val,

(b) an antibody or fragment thereof that specifically binds to a cadherin cell adhesion recognition sequence,

and wherein said modulating agent inhibits cadherin-mediated cell adhesion.

63. (Amended) A method according to claim 60, wherein said modulating agent further comprises at least one cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin, and wherein said cell adhesion recognition sequence is separated from any His-Ala-Val sequence(s) by a linker.

65. (Amended) A method according to claim 60, wherein said modulating agent is linked to a target agent.

66. (Amended) A method according to claim 60, wherein said modulating agent is present within a pharmaceutical composition comprising a pharmaceutically acceptable carrier.

REMARKS

Claims 1-191 were previously pending. With this amendment, claims 1-19, 21, 35, 51, 62, 69-188, and 190-192 are canceled. Accordingly, claims 20, 22-34, 36-50, 52-61, 63-68 and 189 are currently pending. Claims 20, 22, 25, 27-29, 33-34, 36-38, 41-43, 46, 50, 52, 54-

55, 57, 60, 63, and 65-66 have been amended to eliminate multiple dependency. No new matter has been added.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "**Version With Markings to Show Changes Made**." Also enclosed is a copy of Limited Recognition Under 37 CFR § 10.9(b).

Consideration of the application is now respectfully requested.

Respectfully submitted,

Orest Blaschuk et al.

SEED Intellectual Property Law Group PLLC

Qing Lin, Ph.D.
(See Limited Recognition)

QXL:jab

Enclosures:

Version With Markings to Show Changes Made
Copy of Limited Recognition Under 37 CFR § 10.9(b).

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

The following new paragraph has been added to page 1, line 6 before the TECHNICAL FIELD section the following new paragraph:

CROSS-REFERENCE TO RELATED APPLICATION

This application is a continuation of U.S. Patent Application No. 08/939,853, filed September 29, 1997, now issued as U.S. Pat. No. 6,203,788, which application is incorporated herein by reference in its entirety.

In the Claims:

Claims 1-19, 21, 35, 51, 62, 69-188, and 190-192 have been canceled.

Claims 20, 22, 25, 27-29, 33-34, 36-38, 41-43, 46, 50, 52, 54-55, 57, 60, 63, and 65-66 have been amended as follows:

20. (Amended) A method for enhancing the delivery of a drug through the skin of a mammal, comprising contacting epithelial cells of a mammal with a cell adhesion modulating agent and a drug, wherein said modulating agent comprises

(a) the sequence His-Ala-Val, or

(b) an antibody or fragment thereof that specifically binds to a cadherin cell adhesion recognition sequence,

wherein said modulating agent inhibits cadherin-mediated cell adhesion, and wherein the step of contacting is performed under conditions and for a time sufficient to allow passage of said drug across said epithelial cells.

22. (Amended) A method according to claim 20 ~~or claim 21~~, wherein said modulating agent passes into the blood stream of said mammal.

25. (Amended) A method according to claim 20~~ or claim 21~~, wherein said modulating agent further comprises at least one cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin, and wherein said cell adhesion recognition sequence is separated from any His-Ala-Val sequence(s) by a linker.

27. (Amended) A method according to claim 20~~ or claim 21~~, wherein said modulating agent is linked to a targeting agent.

28. (Amended) A method according to claim 20~~ or claim 21~~, wherein said modulating agent is linked to said drug.

29. (Amended) A method according to claim 20~~ or claim 21~~, wherein said modulating agent is present within a pharmaceutical composition comprising a pharmaceutically acceptable carrier.

33. (Amended) A method according to claim 20~~ or claim 21~~, wherein the step of contacting is performed via a skin patch comprising said modulating agent and said drug.

34. (Amended) A method for enhancing the delivery of a drug to a tumor in a mammal, comprising administering to a mammal a cell adhesion modulating agent and a drug, wherein said modulating agent comprises

(a) 3-16 amino acid residues, including the sequence His-Ala-Val, or

(b) an antibody or fragment thereof that specifically binds to a cadherin cell adhesion recognition sequence,

and wherein said modulating agent inhibits cadherin-mediated cell adhesion.

36. (Amended) A method according to claim 34~~ or claim 35~~, wherein the tumor is selected from the group consisting of bladder tumors, ovarian tumors and melanomas.

37. (Amended) A method according to claim 34 ~~or claim 35~~, wherein said composition is administered to said tumor.

38. (Amended) A method according to claim 34 ~~or claim 35~~, wherein said composition is administered systemically.

41. (Amended) A method according to claim 34 ~~or claim 35~~, wherein said modulating agent is linked to a targeting agent.

42. (Amended) A method according to claim 34 ~~or claim 35~~, wherein said modulating agent linked to said drug.

43. (Amended) A method according to claim 34 ~~or claim 35~~, wherein said modulating agent further comprises one or more of:

(a) a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin, wherein said cell adhesion recognition sequence is separated from any His-Ala-Val sequence(s) by a linker; and/or

(b) an antibody or antigen-binding fragment thereof that binds to a cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin.

46. (Amended) A method according to claim 33 ~~or claim 34~~, wherein said modulating agent and said drug are present within a pharmaceutical composition comprising a pharmaceutically acceptable carrier.

50. (Amended) A method for treating cancer in a mammal, comprising administering to a mammal a cell adhesion modulating agent, wherein said modulating agent comprises

(a) 3-16 amino acid residues, including the sequence His-Ala-Val, or

(b) an antibody or fragment thereof that specifically binds to a cadherin cell adhesion recognition sequence,

and wherein said modulating agent inhibits cadherin-mediated cell adhesion.

52. (Amended) A method according to claim 50~~ or claim 51~~, wherein said cancer is selected from the group consisting of carcinomas, leukemia and melanomas.

54. (Amended) A method according to claim 50~~ or claim 51~~, wherein said modulating agent is linked to a targeting agent.

55. (Amended) A method according to claim 50~~ or claim 51~~, wherein said modulating agent further comprises at least one cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin, and wherein said cell adhesion recognition sequence is separated from any His-Ala-Val sequence(s) by a linker.

57. (Amended) A method according to claim 50~~ or claim 51~~, wherein said modulating agent is present within a pharmaceutical composition comprising a pharmaceutically acceptable carrier.

60. (Amended) A method for inhibiting angiogenesis in a mammal, comprising administering to a mammal a cell adhesion modulating agent, wherein said modulating agent comprises

(a) the sequence His-Ala-Val,

(b) an antibody or fragment thereof that specifically binds to a cadherin cell adhesion recognition sequence,

and wherein said modulating agent inhibits cadherin-mediated cell adhesion.

63. (Amended) A method according to claim 60~~ or claim 62~~, wherein said modulating agent further comprises at least one cell adhesion recognition sequence bound by an adhesion molecule other than a classical cadherin, and wherein said cell adhesion recognition sequence is separated from any His-Ala-Val sequence(s) by a linker.

65. (Amended) A method according to claim 60 ~~or claim 62~~, wherein said modulating agent is linked to a target agent.

66. (Amended) A method according to claim 60 ~~or claim 62~~, wherein said modulating agent is present within a pharmaceutical composition comprising a pharmaceutically acceptable carrier.

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Orest W. Blaschuk et al.
Application No.	:	09/778,026
Filed	:	February 5, 2001
For	:	COMPOUNDS AND METHODS FOR REGULATING CELL ADHESION
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Date	:	July 30, 2002

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P.O. Box 2327
Arlington, VA 22202

FILING FORMAL DRAWINGS

Commissioner for Patents:

Enclosed are 16 sheets of formal drawings, Figures 1-12D, for filing in the above-identified application.

Respectfully submitted,

Seed Intellectual Property Law Group PLLC

Qing Lin, Ph.D.
(See Copy of Limited Recognition)

QXL:jab
Enclosures:
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Formal Drawings (16 sheets, Figs. 1-12D)

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